

AMENDMENTS TO THE SPECIFICATION

In the Written Description:

Please amend the paragraph in the present specification appearing at page 1, lines 11-22 as follows:

A ligand-responsive transcription control factor is a protein functioning to promote transcription of a target gene on a DNA, such as a chromosome, in which said protein binds to a respective ligand to be activated and binds to a ligand-responsive transcription control factor recognizing sequence present in a transcription control region of said target gene. As such, the ~~[[ligand-reponsive]]~~ ligand-responsive transcription control factor plays important roles in maintaining homeostasis, reproduction, development and growth, cell differentiation, energy metabolism, drug metabolism and the like of organisms. It is known that when the transcription control by such a ligand-responsive transcription control factor is not normal, an abnormality occurs in the transcription activity of the target gene of said factor, causing various diseases and abnormalities.

The specification from page 3, line 26, to page 8, line 19 is amended as follows:

The present invention provides:

1) an animal cell expressing a gene coding a ligand-responsive transcription control factor and securely maintaining a DNA comprising in a molecule, the following genes (a) and (b):

(a) a reporter gene connected downstream from a transcription control region, in which said transcription control region substantially consists of a recognition sequence of said

ligand-responsive transcription control factor and a minimum promoter which can function in said cell; and

(b) a selective marker gene which can function in said cell;

provided that the following gene (c):

(c) a reporter gene connected downstream from a promoter which transcription activity is unchanged by having said responsive transcription control factor contacted with a ligand of said ligand-responsive transcription control factor, said reporter gene (c) coding a protein which can be differentiated from the protein coded by said gene (a)

is not present in said cell;

2) the cell according to the above 1, wherein said minimum promoter substantially consists of a TATA box;

3) the cell according to the above 1, wherein said ligand-responsive transcription control factor is one selected from an aryl hydrocarbon receptor, intranuclear hormone receptor, estrogen receptor, androgen receptor and thyroid hormone receptor;

4) the cell according to the above 1, wherein said ligand-responsive transcription control factor is an aryl hydrocarbon receptor;

5) the cell according to the above 1, wherein said ligand-responsive transcription control factor is an intranuclear hormone receptor;

6) the cell according to the above 1, wherein said ligand-responsive transcription control factor is an estrogen receptor;

7) the cell according to the above 1, wherein said ligand-responsive transcription control factor is an androgen receptor;

8) the cell according to the above 1, wherein said ligand-responsive transcription control factor is a thyroid hormone receptor;

9) an animal cell expressing an aryl hydrocarbon receptor and an Arnt receptor, and securely maintaining a DNA comprising in a molecule, the following genes (a) and (b):

(a) a reporter gene connected downstream from a transcription control region, wherein said transcription control region substantially consists of a recognition sequence of said aryl hydrocarbon receptor and a minimum promoter which can function in said cell and

(b) a selective marker gene which can function in said cell;

provided that the following gene (c):

(c) a reporter gene connected downstream from a promoter which transcription activity is unchanged by having said responsive transcription control factor contacted with a ligand of said ligand-responsive transcription control factor, said reporter gene (c) coding a protein which can be differentiated from the protein coded by said gene (a)

is not present in said cell;

10) use of an animal cell according to any one of the above 1 to 9 for evaluating an agonist activity or antagonist activity of a chemical substance over the transcription promoting ability of a ligand-responsive transcription control factor, in a reporter assay measuring the amount of a reporter gene under transcription control of said ligand-responsive transcription control factor;

11) a method for evaluating a chemical substance to have agonist activity over the transcription promoting ability of a ligand-responsive transcription control factor, said method comprising:

- (i) culturing an animal cell according to any one of above 1 to 9 in the presence of the chemical substance;
- (ii) measuring the expression amount of a reporter gene in said cell and
- (iii) assessing said chemical substance to have agonist activity over the transcription promoting ability of the ligand-responsive transcription control factor when the measured value of expression amount of said reporter gene introduced into said cell is larger than a measured value of expression amount of said reporter gene in the absence of said chemical substance;

12) a method for evaluating a chemical substance to have antagonist activity over the transcription promoting ability of a ligand-responsive transcription control factor, said method comprising:

- (i) culturing an animal cell according to any one of above 1 to 9 in the presence of the chemical substance and a ligand of said ligand-responsive transcription control factor;
- (ii) measuring the expression amount of a reporter gene in said cell and

(iii) assessing said chemical substance to have antagonist activity over the transcription promoting ability of the ligand-responsive transcription control factor when the measured value of expression amount of said reporter gene introduced into said cell is smaller than a measured value of expression amount of said reporter gene in the presence of said ligand and the absence of said chemical substance;

13) a measuring kit comprising an animal cell according to any one of the above 1 to 9;

14) a method for obtaining an animal cell for measuring the ability to control the activity of a ligand-responsive transcription control factor, said method comprising:

(i) introducing into an animal cell, a DNA comprising in a molecule the following genes

(a) and (b):

(a) a reporter gene connected downstream from a transcription control region, wherein said transcription control region substantially consists of a recognition sequence of said ligand-responsive transcription control factor and a minimum promoter which can function in said cell, and

(b) a selective marker gene which can function in said cell,

said animal cell being

an animal cell that comprises a DNA comprising a gene coding the ligand-responsive transcription control factor introduced thereto before, after or during the same time of above step (i) or that naturally having an ability to express the gene coding the ligand-responsive transcription control factor,

provided that a reporter gene (c) connected downstream from a promoter which transcription activity is unchanged by having said responsive transcription control factor contacted with a ligand of said ligand-responsive transcription control factor, said reporter gene (c) coding a protein which can be differentiated from the protein coded by said gene (a), is not present in the cell; and

(ii) recovering from the transformed cell obtained from step (i), a transformed cell having said introduced DNA securely maintained therein;

15) the method according to the above 14, wherein said cell is an animal cell that comprises a DNA comprising a gene coding the ligand-responsive transcription control factor introduced thereto before, after or during the same time of the step (i);

16) the method according to the above 15, wherein the DNA comprising a gene coding the ligand-responsive transcription control factor, comprises in a molecule, a selective marker gene which can function in said cell and which codes a phenotype different from that of the gene (b).